

REMARKS

This Response is submitted in reply to the non-final Office Action dated July 22, 2008, issued in connection with the above-identified application. A petition for a two-month extension of time accompanies this Response. Claims 1 and 3-11 are pending in the present application. With this Response, no claims have been amended. No new matter has been introduced by this Response.

In the Office Action, claims 1, and 3-11 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Weiss (U.S. Patent No. 5,648,026, hereafter “Weiss”) in view of Noguchi et al. (European Patent No. 562202) and Cutler (U.S. Patent No. 4,592,239).

The Applicants maintain that the cited prior art (individually or in combination) fails to anticipate or render obvious the features of the present invention recited in at least independent claim 1. Independent claim 1 recites the following features:

“[a] blow moulding apparatus for producing hollow bodies of plastic material obtained from respective preforms, comprising:

at least one blow-moulding die configured to contain a plurality of cavities, each cavity being configured for blow moulding respective preforms,

a main conduit operable to supply gas into the plurality of cavities provided inside the at least one blow-moulding die,

a low-pressure gas supply source connected to said main conduit via a first supply channel,

a first controlled valve provided to the first supply channel,

a high-pressure gas supply source connected to said main conduit via a second supply channel, and

a second controlled valve provided to the second supply channel,

wherein the second supply channel includes a differential pressure measuring device operable to detect and measure a presence or an absence of a gas flow passing through the second supply channel at a pre-determined time after a blow-moulding phase has started.”

The features emphasized above are fully supported by the Applicants’ disclosure (see e.g., Fig. 1A).

The present invention, as recited in independent claim 1, is distinguishable over the cited prior art in that the second supply channel includes a differential pressure measuring device that measures gas flow in a second supply channel which includes a high-pressure gas supply source. The second supply channel is responsible for the final blowing stage of the moulding process in which the volume and shape of the container being blow moulded is kept almost constant by the high pressure from the high-pressure gas supply source. The differential pressure measuring device in the second supply channel provides detection and helps to reduce the possibility of rupturing or exploding a container during the final blowing stage of the blow moulding process.

In the Office Action, the Examiner relies on the combination of Weiss, Noguchi and Cutler for rendering obvious all the features of claim 1.

Specifically, the Examiner relies on Weiss for disclosing generally a blow moulding apparatus. And, the Examiner relies on Noguchi for disclosing a blow moulding apparatus having a blow air pressure detector within an air supply path, and Cutler for disclosing the measuring of flow within a conduit by a pressure differential.

The Examiner alleges that it would be obvious to modify the moulding apparatus in Weiss using the blow air pressure detector in Noguchi. Additionally, the Examiner alleges it would be obvious to further modify the combination of Weiss and Noguchi using the differential pressure measuring technique in Cutler to arrive at the present invention recited in claim 1, which the Examiner alleges equates to an “obvious to try” rationale.

The Applicants disagree with the Examiner’s conclusions for the reasons noted below.

First, the Applicants assert that the mere fact that references can be combined or modified does not render obvious the resultant combination unless the results would have been predictable to one of ordinary skill in the art (see MPEP 2143.01 (III)).

Specifically, the present invention (as recited in claim 1) includes the use of a high-pressure gas supply source connected to a main conduit via a second supply channel, wherein the second supply channel also includes a differential pressure measuring device operable to detect and measure gas flow passing through the second supply channel at a pre-determined time after a blow-moulding phase has started.

Weiss, on the other hand, fails to disclose or suggest any type of measuring device for measuring of gas flow, let alone a differential pressure device. Additionally, although Noguchi indicates that there is provided a pressure detector (315) in an air supply path, it does not

mention that the pressure detector is implemented in a high pressure supply channel. Noguchi also does not disclose or suggest that the pressure detector is a differential pressure device. Thus, it would not be predictable to one of ordinary skill to arrive at the present invention (as recited in claim 1) simply by applying the differential pressuring measuring technique within a conduit of Cutler to the combination of Weiss and Noguchi.

Second, the Applicants assert that if the proposed modification or combination of the cited prior art would change the principle operation of the cited prior art being modified, then the teachings of the cited prior art would not be sufficient to render the claims of the invention *prima facie* obvious (see MPEP 2143.01(VI)). In the Office Action, the Examiner alleges that it would be obvious to modify the moulding apparatus in Weiss using the teachings of Noguchi and Cutler. However, as noted above, the blow moulding apparatus in Weiss fails to disclose or suggest any type of gas flow measuring device. Thus, it is difficult to understand how the principle operation of the blow moulding apparatus disclosed in Weiss would not be changed based on the substantial modifications suggested by the Examiner.

Third, the Applicants assert that the only way to arrive at the present invention (as recited in claim 1) is by impermissible hindsight. The Examiner is respectfully reminded that impermissible hindsight must be avoided and legal conclusion must be reached on the basis of the facts gleaned from the cited prior art (see MPEP 2142). As noted above, Weiss fails to disclose or suggest any type of measuring of gas flow, let alone a differential pressure device. Noguchi discloses the use of a pressure detector in an air supply path, but makes no mention that the pressure detector is implemented in a high pressure supply channel, or that the pressure detector is a differential pressure device. Thus, the only hint of attempting to use a differential pressuring measuring device in a high pressure supply channel in combination with the teachings of Weiss and Noguchi would be from the Applicants' disclosure. Nothing in the cited prior art, including Cutler, discloses or suggests such a combination or modification.


Finally, the Examiner's "obvious to try" rationale appears to be slightly misplaced. It would be a more accurate obvious to try rationale for a person of ordinary skill in the art to substitute the pressure detector of Noguchi with pitot tubes of Cutler. However, even if such a substitution is made there is still no suggestion or motivation for a person of ordinary skill in the art to substitute the pressure detector of Noguchi with a differential pressure measurement device, given that there is no suggestion or motivation in the cited prior art to do so.

Based on the above discussion, no combination of Weiss, Noguchi and Cutler, would result in, or otherwise render obvious, the features of independent claim 1. Likewise, no combination of Weiss, Noguchi and Cutler, would result in, or otherwise render obvious, the features of claims 3-11 at least by virtue of their dependencies from independent claim 1.

In light of the above, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass this application to issue. The Examiner is also invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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